

Washington State On-Site Wastewater Technical Review Committee

Minutes for the October 24, 2001 Meeting

Approved on December 12, 2001 by Vote of the
Committee



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CONTENTS	PAGE
Meeting Attendees	1
Introduction	2
Summary of Technical Discussions	2
On-Site Advisory Committee (OAC) – Update.....	2
Technical Issues for the RDC / Initial Exploration.....	3
Glendon BioFilters – RS&G Development.....	4
Nibbler, Jr. – Update.....	7
EZflow – Update on Drainfield Sizing.....	8
Administrative/Other Issues	8
May 30, 2001 Meeting Minutes Review	9
Next Meeting – To Be Announced.....	9
List of Meeting Materials.....	9

MEETING ATTENDEES

Members Present

1. Kevin Barry, Eastside Environmental Hlth
2. Pam Denton, LHJ Field Staff
3. Scott Jones, Engineers
4. Eric Knopf, Installers
5. Bob Monetta, Chair, Realtors
6. Bill Peacock, Public Sewer Utilities
7. Tom Rogers, Proprietary Devices
8. Mike Vinatieri, Westside Environmental Hlth

Members Absent

1. Melanie Kimsey, Dept of Ecology

DOH Staff

1. Mark Soltman, Wastewater Mgt Program, Supervisor
2. Laura Benefield, Wastewater Mgt Program
3. John Eliasson, Wastewater Mgt Program
4. Selden Hall, Wastewater Mgt Program
5. Deb Jaqua, Wastewater Mgt Program

Guests Who Signed In or Presented

1. Dean Bannister
2. Tom Dozal, Cultec, Inc.
3. Randy Freeby, Thurston Co.
4. Carl Garrison
5. Lou Hagler, Evergreen MultiFlo
6. Pete Lombardi, Orenco Systems
7. Dave Lowe
8. Alex Mauck, EZ Drain
9. Nan Mauck, EZ Drain
10. Marianne Seifert, Wa. St. Board of Health
11. Dan Stucki, Infiltrator Systems
12. Bill Stuth, Sr., NCS Stuth
13. Tom Teal, Glendon BioFilter

INTRODUCTION

The meeting was called to order by Bob Monetta, Chair, at approximately 10:10 a.m. on October 24, 2001 in the Meeting Room of the Washington State Parks Hyak Lodge in Snoqualmie Pass. The meeting began with brief introductions of the new members and by each committee member.

SUMMARY OF TECHNICAL DISCUSSIONS

On-Site Advisory Committee (OAC) Update – Mark Soltman gave a presentation on the On-Site Wastewater Advisory Committee. The OAC was established by WAC 246-272-24001 to make recommendations about policy and regulations, review program services, and provide input regarding the on-site sewage program. The OAC provided DOH with 55 ranked recommendations including the need for rule development/revision. Mark's presentation outlined the following topics:

- Why have an On-Site Advisory Committee
- The OAC Challenge
- The OAC Membership
- The OAC Meeting Schedule
- Wastewater Management Program Elements
- Wastewater Management Program Infrastructure
- Wastewater Management Regulatory Programs
- Wastewater Management Technology Transfer
- The OAC Recommendations
- Operation and Maintenance Issues
- Rules Vs. Guidance Issues
- Jurisdictional Relationship Issues
- Technology Transfer Vs. Review and Approval Issues
- Funding/Fees Issues
- Implementing Priority Recommendations
- Impact of Shifting Resources to Rule Development and O & M Coordination
- Regulatory Framework for On-Site Sewage Treatment

Issues discussed were as follows:

Mark pointed out that the number one ranked priority from the OAC was to establish an O & M Coordinator position. This position would promote development of local O & M programs and would assist the development of linkages between O & M programs, practitioners and community educators. In the short term, Selden Hall of the Wastewater Management Program will fill this position. Selden has been involved in O & M issues since the requirement was placed in rule in 1995 [WAC 246-272-15501 (2)(b)(ii)]. Selden is expected to hold this position for the next 12-18 months until such time as funding is made available for a new position.

Question: What was the recommendation of splits on flows with regard to the Large On-Site Sewage Program?

Response: There were no specific recommendations from the committee. The Department of Ecology and The Department of Health will need to discuss options.

Question: Is the Underground Injection Control (UIC) issue still a problem?

Response: The Department of Ecology is still working on UIC rules for wastewater flows (Class V category). The EPA is re-evaluating the classification. This issue still needs to be addressed.

Question: An O & M coordinator was at the top of the list for this OAC and the last OAC. Both lack a commitment to fund this program and position.

Response: The OAC recommended the O & M Coordinator position have many players actively involved. They wanted to know if anyone was coordinating these efforts and were willing to seek funding to support the Coordinator position.

Question: How many counties have O & M programs?

Response: All of the counties have an O & M program. What they look like and how they are funded varies.

Question: With the budgetary constraints what parts of the WWMP will be lost? You are talking about hiring positions and dropping services.

Response: The OAC wanted the facilitator of the RDC to be outside of the WWMP. They wanted a view from an outsider not WWMP personnel. A rule writer is needed for the rule development process. As for the impact to WWMP, the RDC research will consume large amounts of staff time. The WWMP staff must provide research for discussions of the RDC. This will in turn slow down WWMP response time to requests for technical assistance, reviews, etc.

Question: Will the TRC also be involved?

Response: Yes, on technical issues.

Technical Issues for the RDC/Initial Exploration – Mark Soltman gave an update on the Rule Development Committee and the possible issues that will need to be researched. Staffing issues were discussed and the role change of the TRC during the rule development process.

In 1994, two staff members were directly involved in the rule development process. One acting as the facilitator and one on the committee. These staff members were directly involved in the rule writing process.

In 2002, the department will have a representative on the committee. The Rule Development Committee needs to be independent, not an off-shoot of the WWMP. Kelly Cooper who will be the rule writer has worked with DOH and DSHS in rule writing previously.

Research for the RDC by staff is probably going to consume ½ of John Eliasson's time and 25-30 % of the technical staff time. It will be critical, as with the TRC, that the RDC members link with their constituents to make sure that all parties have an opportunity to voice their needs.

The TRC will need to take a strong role on the technical issues going before the RDC. During the rule development process the TRC will need to change their focus. The TRC will be asked to review and give recommendations to the RDC on technical issues.

Question: What is the motivation behind the rule revision?

Response: The legislatures move toward regulatory reform. Over a year ago a review of the WAC was completed and showed a need for change.

Question: What were the areas of concern?

Response: There were issues of clarity, inconsistencies, conflicts with other agency rules, etc. The review was not done at the technical element level.

Question: Will the rules have more technical issues in them?

Response: The RDC will write the rule. The TRC will provide guidance on technical issues. The local health departments can adopt the RS&G's as local rule or use them as guidance. Regulating occurs at the local level. Where DOH has regulatory authority, the LOSS program for example, it will need to be in rule. It cannot just be in guidance alone.

Question: Will the LOSS section expand?

Response: Yes.

Question: Can there be flexibility in rule so that changes can be made when needed?

Response: That's for the RDC to determine. Packaging the rules in separate documents may allow for a specific rule to be changed without having to change the entire package of rules.

Question: If one section needs to change wouldn't it possibly take a year to change?

Response: Possibly. Other departments are able to make changes more easily. This is all new territory for us.

Question: Is it possible that the TRC will begin meeting monthly during this process.

Response: Probably.

Mark gave the TRC two handouts pertaining to rule development issues and requested the TRC to add issues that they felt needed to be researched for the RDC meetings. A time will be set for discussion after the TRC has had time to review the handouts and prioritize their issues for the RDC.

Assignments: WWMP staff will work on the rule development issues handout to try to simplify it prior to the next meeting.

Glendon BioFilters – RS&G Development – DOH is in the process of revising the RS&G for Glendon BioFilters and lists the following reasons for this activity:

1. The current document is more than 4 years old and by statute must be revised.
2. Use of the current document has identified issues that need to be addressed
3. Field study identified issues that need to be addressed
4. To bring document into the current format for RS&Gs
5. To make consistent with other RS&Gs

Presentation by Selden Hall of DOH – Selden Hall gave a presentation to the TRC related to a draft revision to the RS&G for Glendon systems that included the following:

- Brief description and explanation of the technology including drawings of the treatment and disposal unit, need for watertight vessel and level rim, sizing of the system, areas under the cover sand that can be included in the absorption area and some photographs of field installations.
- Results of the field study of Glendon BioFilters and mounds.

Local health jurisdictions have made many requests for more items to be addressed in the new revision to the RS&G. Upon conclusion of the field survey there were a number of issues that were found that did need to be addressed in the revised Glendon RS&G. A few of these are as follows:

- Need for third party (LHJ) observations of installations
- Need for improved quality control
- Need for stabilization of slope
- Need for designs to facilitate maintenance of vegetation
- Need for training for LHJ personnel on Glendons

Questions during the presentation included the following:

Question: On the cross-section slide, the top media is not described. What is the top layer on the slide?

Response: Cover material. The patent actually describes 5 layers but Glendon designs 4.

Question: How is the liquid level maintained?

Response: Glendon says they have worked out the dosing regime based on the length of rim of the vessel. The new draft document includes a monitoring port near the rim to monitor the wastewater level close to the rim. The liquid in the standpipe may be higher than the actual Glendon liquid level.

Questions: What makes the Glendon the system of choice?

Response: (From Pam Denton) The homeowner or designer chose the system.

Question: On slopes >5%, why is the absorption area only the downslope area; wouldn't the upslope rim wick an equal amount?

Response: Don't know how much is wicked over the upslope rim. The limitation of the absorption area to the downslope soil is because the liquid discharged over the upslope rim would still run downslope around the containment vessel to be transmitted by the downslope soils.

Question: Are you assuming horizontal movement on site.

Response: Normally. This system is intended for sites with shallow soils.

Question: Is there a recommended vegetation to be used?

Response: Glendon has these on their website.

Question: Are these systems limited by rainfall?

Response: I don't know. The tested units were in Kitsap County.

Question: Were the systems with slope stability problems vegetated?

Response: Some were and some were not.

Question: What generally was the slope on the sides of the Glendons?

Response: 1.5 to 1.

Selden presented 3 issues from the draft revision that need TRC discussion and recommendations. Summaries of the issues with the DOH position and the question to the TRC for each issue were distributed (See Attachment A). The discussion will take place at the next TRC meeting after the committee has a chance to study the issues. The issues were:

- Sand specifications for the cover sand
- Absorption area requirements for initial and replacement areas
- Horizontal separation requirements

Each TRC member had also received two letters from private sector professionals opposing some of the requirements in the draft RS&G (See Attachment B)

Discussion:

1. Sand specifications for the cover sand

Selden: Glendon feels that anything within their sand specifications will treat the effluent. Could we reasonably expect Treatment Standard 1 & 2 when Glendons sand specifications are outside the tested range?

Question: I would be concerned with treatment and hydraulic movement. How do we justify the use of other sands?

Response: We know what it was tested at only.

Comment: If Glendon feels it will meet the standard then show us the information.

Question: Is the Glendon range okay or not?

Question: Is the sand available and does C-33 fall within the specs?

2. Absorption area requirements for initial and replacement areas:

Selden: In 1995 sand filters were given an allowance for a 50% size reduction based on effluent quality. Shortly after that Glendon requested the same allowance based on the Glendon effluent quality being like the sand filter effluent quality. Since that time the TRC, through much discussion, recommended that due to the sensitivity of the sites that sand filters were being used that 100% primary and reserve area should be set aside while still allowing the 50% reduction in the installed area. Both sand filters and mounds fall under the Effluent Quality Based Drainfield RS&G. The question for the TRC is, "Would this apply to Glendons also?" This has a significant impact on Glendon.

Question: With 100% primary and reserve area we have area available if a problem arises. Are we really ready for reductions?

Question: Do we really need to micro-manage or should waivers for the reduction in area be used instead?

3. Horizontal separation requirements:

Selden: The Mound RS&G requires a 30 foot horizontal setback. With a system that meets Treatment Standard 1 & 2 do we still need the 30 feet or can that be reduced? Do the new setbacks in the Draft Glendon RS&G make sense?

Presentation by Tom Teal, of Glendon BioFilter Company – Tom Teal began his presentation with a briefing on draft RS&G for Glendon BioFilters, and distributed a 4-page handout (Attachment C). The TRC Chair asked that Tom address the issues raised by Selden Hall. Tom then addressed the following:

- Issue #3: Downslope setbacks – See 2.4.4 in his handout.
- Issue #2: Absorption area – Tom described a site with a 3 bedroom home on a 90' x 120' lot where they were able to put in a Glendon system with 50% absorption area and a 100% reserve area. He said that small lots need special consideration.
- Issue #3: Cover sand – Availability is an issue. Will different sands work? Tom says “yes”. The handout photo shows how systems intended for sampling are constructed. A 30 mil PVC liner is spread over the entire native grade, in which a trench has been formed 360° around the basin. In this depression a perforated pipe is laid and then directed through a solid pipe to a sampling port dropbox. Any effluent collected that is not captured for a sample is directed to a gravelless chamber drainfield.

TRC Chair asked that Tom Teal be available at the next TRC meeting when the TRC will be discussing the issues.

ASSIGNMENTS:

1. TRC members will study the 3 issues and be prepared at next meeting to discuss and address the questions that Selden presented in his handout.
2. Selden will provide an amended draft RS&G to replace the one sent out to the TRC in August (He asked that the August draft be discarded.).

Nibbler, Jr. - Update – Laura Benefield provided an update to the committee on the approval status of the Nibbler Jr. At the May 2001 meeting, the committee was left with a set of questions related to the approval of the Nibbler Jr. as a Category 2 ATU. The testing protocol in the settlement agreement did not allow any exceedances for a Category 2 approval, and therefore DOH could not issue an approval for Category 2. DOH then reviewed the testing data for Category 3 ATUs (high-strength residential wastewater), and found that the Nibbler Jr. could meet the approval criteria for this category of ATU. The Stuth Company has accepted the approval as satisfying the terms of the settlement agreement.

ACTION: With some discussion, the TRC confirmed the DOH approval.

ASSIGNMENTS:

1. Laura Benefield to forward copies of the Nibbler, Jr. approval letter to the TRC members.

Interim Allowance for Use of Category 1 ATUs at Category 2 Sites - The interim standards for the use of Category 1 ATUs at Category 2 sites were initiated for a period of 18 months, which will expire January 31, 2002. Because DOH will be focused on other priorities for the next two years, Laura suggested to the TRC that this interim standard be extended for two years. The following bullet statements summarize the discussion points.

- During this period, any approvals under this interim period were to include appropriate engineering and minimum performance testing for 6 months. In addition, the TRC intended to have data gathered to determine the merits of this interim standard.
- Have any LHDs approved any ATUs under this interim standard?
- Has any performance data been reported?
- Continuing this standard for another 6-12 months could be part of the research for rule development.
- North Carolina (Joe Pearce) is dealing with the same issue.
- Laura has sent out emails to LHDs requesting information on any installations under this interim standard, and will continue placing this issue before the LHDs.
- The data collection should be the responsibility of the ATU industry.
- TRC would like to base a decision on how well this interim standard is working in terms of compliance with the performance standards and reporting of testing results.
- If installations have occurred and no testing has been performed or no performance data has been submitted than the interim allowance should be discontinued.

ASSIGNMENTS:

1. DOH will assess where this interim standard has been used and gather any data on performance that has been collected.
2. DOH will report findings at next meeting.

EZflow – Update on Drainfield Sizing – Mark Soltman presented a memorandum from DOH to Environmental Health Directors and Sewage Program Coordinators RE Ezflow Drainfield Size Reduction Allowances. This modification to the Gravelless Drainfield RS&G represents some but not all of the requests for reduction made by EZflow.

Mark also handed out copies of a report by Kevin White P.E, Professor at University of South Alabama, that presents an assessment of EZflow systems installed in Alabama at the manufacturer's recommended sizing.

Alex Mauck handed out two additional documents. One document is a two-page submittal which incorporates sidewall and masking factors vs. bottom area for sizing of drainfields. Additional information is being sought about the author's credentials. The other is a letter to him from an engineering firm that made actual measurements of open area for two types of chambers. No data were included. Alex says one of the papers presented today will be included in NOWRA's national standards.

ADMINISTRATIVE/OTHER ISSUES

TRC Meetings

Several TRC members voiced an interest in meeting 2-3 days at a time, to help focus and improve effectiveness. Mark stated that his goal is to meet once every 4-6 weeks because the TRC activity is critical for rule development. However, multi-day meetings will require him to take another look at the budget (Earlier in the day, Mark had described the limited resources available to the DOH wastewater

program which was also looking at another possible 15% cut.). Monthly meetings will allow the TRC to keep up with the rule development committee.

Next meeting in late November or early December. It will be a one-day meeting where 4-5 hours will be devoted to triaging the technical issues and setting priorities for study and development. Mark will email for response to possible dates. Ellensburg will be the site for the 1-day meeting.

Format for Presenting Issues to TRC

- John Eliasson, who will lead DOH efforts in researching technical issues for rule development, asked the TRC to think what format DOH should present issues to the TRC for assimilation. TRC asked that DOH present some suggestions.
- DOH will be developing a format for presenting information to the Rule Development Committee. Perhaps this same format will work well for the TRC.
- Is there a way to post abstracts on the Web? Scott pointed out that the Army Corps of Engineers has software where people can make comments online, download documents, etc.
- Mark said that DOH is exploring Web-based means of having online discussions.

May 30, 2001 Meeting Minutes Review –Mark Soltman will request review and approval by email and fax. Final copies of the minutes will be distributed to the committee prior to the next meeting.

Process Issues – Reimbursement process paperwork was distributed and returned by the committee.

Next Meeting – The next TRC meeting is to be announced.

MEETING MATERIALS¹

Administrative/Other Materials

Meeting Agenda

1. Meeting Agenda, October 24, 2001

On-Site Advisory Committee (OAC) - Update

1. Powerpoint Presentation by Mark Soltman, October 24, 2001.
2. OAC Summary Report, September 30, 2001

Technical Issues for the RDC / Initial Exploration

1. Roles and Responsibilities for Parties Associated On-Site Rule Development Committee (RDC)
2. On-Site Sewage System Rule Development Issues

Glendon BioFilters – RS&G Development

1. *Issues for TRC*, a handout from Selden Hall summarizing 3 issues needing TRC discussion and recommendation, and a specific question to the TRC for each of these 3 issues.
2. Letter from Bob Paysse, Owner of Pioneer Digging, to Selden Hall, subject Glendon BioFilter and DOH. October 9, 2001.
3. Letter from Mason County On-site Sewage Advisory Committee to Selden Hall, DOH and to TRC. October 24, 2001. *[Does not appear to be on Mason County letterhead.]*
4. *Briefing for the TRC on DOH proposed Glendon Guidelines*, from Tom Teal, Glendon BioFilter Technologies. October 24, 2001.

Previous Product Approval and Allowance Issues - Update

EZflow – Update on Drainfield Sizing

1. Memo from Mark Soltman to Environmental Health Directors and Sewage Program Coordinators, regarding EZflow Drainfield Size Reduction Allowances. September 5, 2001.
2. Preliminary report from Kevin D. White, PhD, PE, Professor University of South Alabama, Dept. of Engineering, *Assessment of Hardened EPS, Geosynthetic Tranch systems Under Various Soil Conditions in Alabama*, April 30, 2001. Cover letter from Alex Mauch, EZ Drain Company, dated October 10, 2001.
3. Excerpt from paper by Michael Lloyd, comparing bottom area in gravel trenches vs sidewall in Ezdrain systems, dated October 16, 2001. Received from Alex Mauck, October 24, 2001.
4. Letter from Darrin O. Eckman, PE, of Tenneson Engineering Corporation, to Alex Mauck, RE measurement of open area beneath two models of gravelless chambers. Dated July 13, 2001. Received from Alex Mauck October 24, 2001.

¹ All listed meeting materials are maintained by the Department of Health in a meeting manual entitled: *Technical Review Committee Meeting, October 24, 2001*. For further information, please contact the Department of Health's Wastewater Management Program at (360) 236-3062.